Body Builders Layout Book

F-150

WHAT'S NEW

- Updated Tire Chart
- Updated Weight Chart

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INTRODUCTION

IMPORTANT NOTICES

The information described herein is believed to be correct at the time of publication, but accuracy cannot be guaranteed. Ford reserves the right to discontinue models or change specifications or designs at any time without notice and without incurring any obligation.

Representations regarding the compliance of any Ford- manufactured incomplete vehicle to any rule, regulation or standard issued pursuant to the National Traffic and Motor Vehicle Safety Act or the Canadian Motor Vehicle Safety Act are set forth only in the Incomplete Vehicle Manual (IVM) which accompanies each incomplete vehicle.

Regulations such as those issued by the Federal Highway Administration (FHA) or issued pursuant to the Occupational Safety and Health Act (OSHA), and/or state, provincial, and local laws and regulations may require installation of additional equipment for the particular use intended for the vehicle. It is the responsibility of the subsequent stage manufacturer or completed vehicle alterer and the vehicle purchaser to ascertain how the vehicle will ultimately be used, if FHA, OSHA or state provincial or local regulations apply and how the vehicle as completed will comply with those requirements. Nothing contained herein is to be construed as a representation that such equipment required for the particular use intended has been installed on the completed or incomplete vehicle.

REFERENCE INFORMATION

Ford Body Builder Advisory Service Publications

This document is an example of a program-specific Body Builders Layout Book (BBLB) published by the Ford Body Builder Advisory Service (BBAS) team. Each Ford Commercial Truck vehicle line has a similar document that aims to provide detailed information which may be of interest to a subsequent-stage manufacturer or alterer.

The Ford Transit and Transit Connect also have a Body and Equipment Mounting Manual (BEMM), which is a comprehensive resource dedicated to body and equipment mounting information.

Yet another source of program-specific information are the “Vehicle Specification” documents available on the Ford BBAS website. Information typically found in these documents are vehicle curb and accessory weights, vehicle dimensions, component descriptions, capacities, GAWRs, alternator output, powertrain output and gear ratios.

In addition to the program-specific documents, there are several Ford BBLB documents that contain general best practices or information on specific subjects that span multiple vehicle lines. These include:

- General BBLB - contains Definitions, Design Recommendations and Vehicle Storage Guidelines.
- Snowplow BBLB
- Pickup Box Removal BBLB

These publications are updated every model year and can be accessed via the web at https://www.fordpro.com/en-us/upfit/bbas/ under “Publications”. For BBLB and BEMM documents, expand the “Body Builder Layout Book” Section to view all available documents. For Vehicle Specifications, expand the “Vehicle Specifications” section. The website search function can be used to filter for specific content or vehicle line.

Ford Body Builder Advisory Service Bulletins

- Occasionally, the Ford BBAS team will create an SVE “Bulletin” to address a specific issue or distribute important information in a timely manner. These documents can be accessed via the web at https://www.fordpro.com/en-us/upfit/publications/, under “Bulletins”. The website search function can be used to filter for specific content or vehicle line.

If applicable, information from each SVE bulletin will be incorporated into the appropriate BBLB document the following model year. In some cases, SVE bulletins will continue to be referenced in this document.

Ford Body Builder Advisory Service Contact

The Ford Truck Body Builder Advisory Service may be consulted if questions regarding the completion of Ford commercial vehicles are not adequately addressed in the documentation described above. For assistance call (877) 840-4338 or e-mail via the web at https://www.fordpro.com/en-us/upfit/contact-us

- For Ford vehicle CAD requests, please visit https://www.fordpro.com/en-us/upfit/cad/

For both Questions and CAD Requests, please be as specific as possible with the request details to assure the most accurate and timely response.

Ford Service Publications

Ford Service Technical Resources (including wiring diagrams, repair manuals and diagnostic tool support) are available by subscription via the Motorcraft website: www.motorcraftservice.com

The following publications are examples of digital and printed manuals which are available from Helm Incorporated; call 1-800-782-4356 or contact Helm, Inc. at their website www.helminc.com:

- Ford Truck Shop Manuals
- Ford Towing Manuals
- Ford Wiring Diagrams

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MODEL LINEUP: REGULAR & SUPER CAB

CAB	WB (IN.)	DRIVE	ENGINE	GVWR	PAYLOAD MAX[1]	BASE CURB WEIGHT			GAWR MAX[2]		AXLE RATING MAX		SPRING RATING MAX		ARC WEIGHT MAX[3]
						FRONT	REAR	TOTAL	FRONT	REAR	FRONT	REAR	FRONT	REAR	
REGULAR	122 (6.5 Box)	4 X 2	5.0L	6250	1810	2526	1865	4391	3000	3800	4050	4050	3000	3800	482
		4 X 4	5.0L	6450	1740	2773	1882	4655	3150	3800	4050	4050	3150	3800	492
	141 (8' BOX)	4 x 2	3.5 GTDI	7100	2445	2670	1936	4606	3150	4150	4050	4800	3150	4150	533
			5.0L	6800	2175	2702	1872	4574	3150	3800	4050	4800	3150	3800	513
			2.7L GTDI	6220	1775	2590	1807	4396	3150	3400	4050	3800	3150	3500	549
		4 X 4	2.7L GTDI	6450	1715	2858	1822	4679	3300	3400	4050	3800	3300	3500	566
			5.0L	7000	2120	2910	1916	4826	3375	3800	4050	4800	3375	3800	576
			3.5L GTDI	7100	2175	2857	2011	4868	3375	4150	4050	4800	3375	4150	557
SUPER CAB	145 (6.5 Box)	4 x 2	2.7L GTDI	6365	1670	2669	1972	4641	3300	3400	4050	3800	3300	3500	673
			5.0L	6940	2195	2750	1942	4692	3375	3800	4050	4050	3375	3800	705
			3.5L GTDI	6900	2060	2708	2077	4785	3300	3800	4050	4800	3300	3800	700
		4 x 4	2.7L GTDI	6550	1600	2929	1967	4895	3525	3400	4050	3800	3525	3500	717
			5.0L	7100	2095	2952	1996	4948	3600	3800	4050	4800	3600	3800	750
			3.5L GTDI	7100	2005	2925	2113	5038	3525	3800	4050	4800	3525	3800	705

1.Payload rating represents the maximum allowable weight of passengers, cargo and body equipment, and is reduced by optional equipment weight.
2.Gross Axle Weight Rating (GAWR) is determined by the rated capacity of the minimum component of the axle system (axle, computer-selected springs, wheels, tires) of a specific vehicle. Front and rear GAWRs will, in all cases, sum to a number equal to or greater than the GVWR for the particular vehicle. Maximum loaded vehicle (including passengers, equipment and payload) cannot exceed the GVWR.
3.Accessory Reserve Capacity (ARC) Weight is the maximum allowable weight of aftermarket equipment for models with standard equipment and the engine/transmission combination indicated. This capacity is reduced by optional equipment weight.

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MODEL LINEUP: CREW CAB

CAB	WB (IN.)	DRIVE	ENGINE	GVWR	PAYLOAD (MAX)(1)	BASE CURB WEIGHT			GAWR (MAX)(2)		AXLE RATING MAX		SPRING RATING MAX		ARC WEIGHT MAX(3)
						FRONT	REAR	TOTAL	FRONT	REAR	FRONT	REAR	FRONT	REAR	
CREW	145 (5.5 BOX)	4 X 2	2.7L GTDI	6426	1685	2696	1991	4687	3375	3400	4050	3800	3375	3500	795
			3.5L GTDI	6800	1900	2729	2115	4844	3450	3800	4050	4050	3450	3800	779
			5.0L	6850	2025	2762	2007	4769	3450	3800	4050	4050	3450	3800	787
			5.0L	7100	2220	2762	2057	4819	3450	4150	4050	4800	3450	4150	777
			3.5L GTDI	7100	2150	2729	2165	4894	3450	4150	4050	4800	3450	4150	734
		4 X 4	2.7L GTDI	6650	1650	2930	2011	4941	3600	3400	4050	3800	3600	3500	789
			3.5L GTDI POLICE	7075	1965	2943	2108	5051	3525	3800	4050	3375	3525	3800	276
			3.5L GTDI	7100	1945	2956	2140	5096	3750	4150	4050	4800	3750	3800	786
			5.0L	7100	2020	2987	2033	5020	3750	3800	4050	4800	3750	3800	831
			3.5L FHEV	7400	1750	3261	2324	5585	4050	4150	4050	4800	4050	4150	778
	157 (6.5'BOX)	4 X 4	5.0L	7200	2020	3115	2007	5122	3900	4150	4050	4800	3900	4150	788
			3.5L GTDI	7200	2000	3023	2120	5143	3750	4150	4050	4800	3750	3800	791
			3.5L FHEV	7400	1730	3340	2268	5608	4050	4150	4050	4800	4050	4150	872
F-150 LIGHTNING															
CREW	145 (5.5' BOX)	4 X 4	BEV (4P)	8350	2329	3147	2814	5961	3770	4900	4650	4900	3770	4900	1202
			BEV (5P Dual Charger)	8550	2164	3279	3044	6322	3940	4960	4650	4960	3940	4960	840
			BEV (5P) Single Charger	8550	2226	3271	2990	6260	3940	4960	4650	4960	3940	4960	902
			BEV (5P) Single 20" A/T	8450	1877	3348	3159	6507	3940	4800	4650	4960	3940	4960	656
			BEV 5P PLATINUM	8600	1775	3459	3298	6757	4050	4800	4650	4900	4050	4950	406

26484 029 - F150 4X4 145WB C/Cab 3.5L POLICE (45cP) 3.5L GTDI 10R80 145 7075 1965 2943 2108 5051 3375 3525 3800 3800 4050 3800 3375 3525 3800 3800 276

1.Payload rating represents the maximum allowable weight of passengers, cargo and body equipment, and is reduced by optional equipment weight.
2.Gross Axle Weight Rating (GAWR) is determined by the rated capacity of the minimum component of the axle system (axle, computer-selected springs, wheels, tires) of a specific vehicle. Front and rear GAWRs will, in all cases, sum to a number equal to or greater than the GVWR for the particular vehicle. Maximum loaded vehicle (including passengers, equipment and payload) cannot exceed the GVWR.
3.Accessory Reserve Capacity (ARC) Weight is the maximum allowable weight of aftermarket equipment for models with standard equipment and the engine/transmission combination indicated. This capacity is reduced by optional equipment weight.
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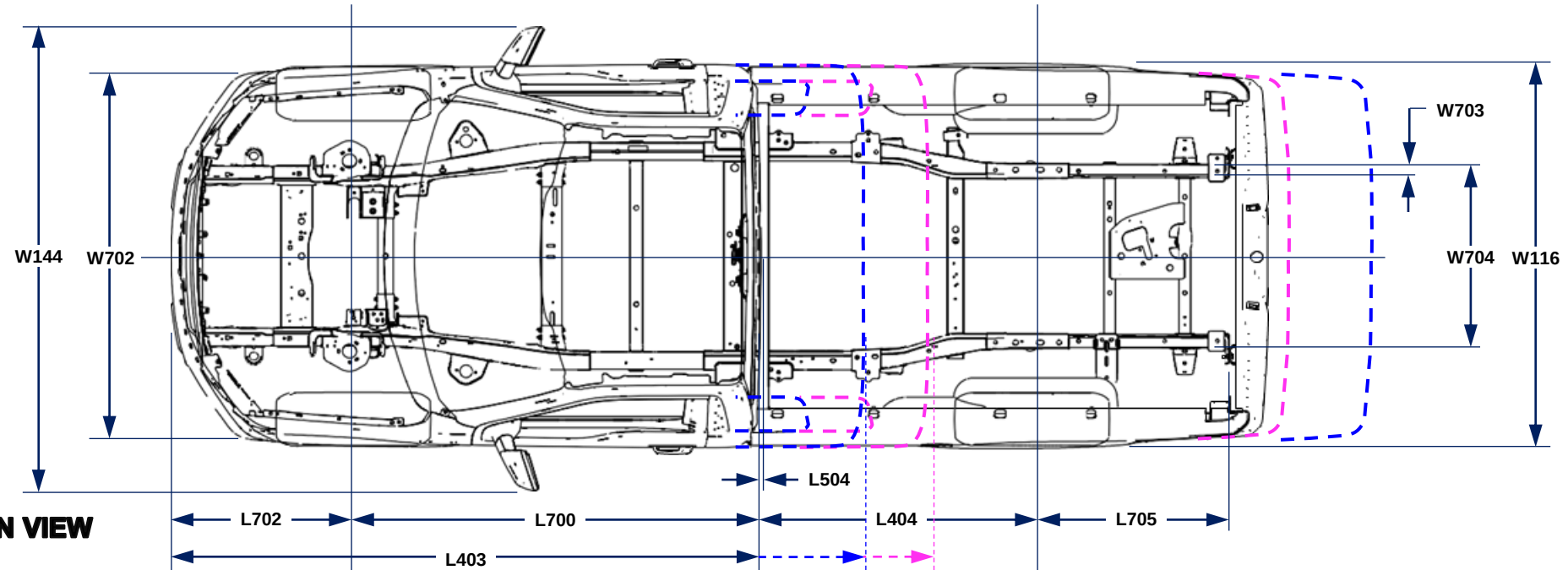
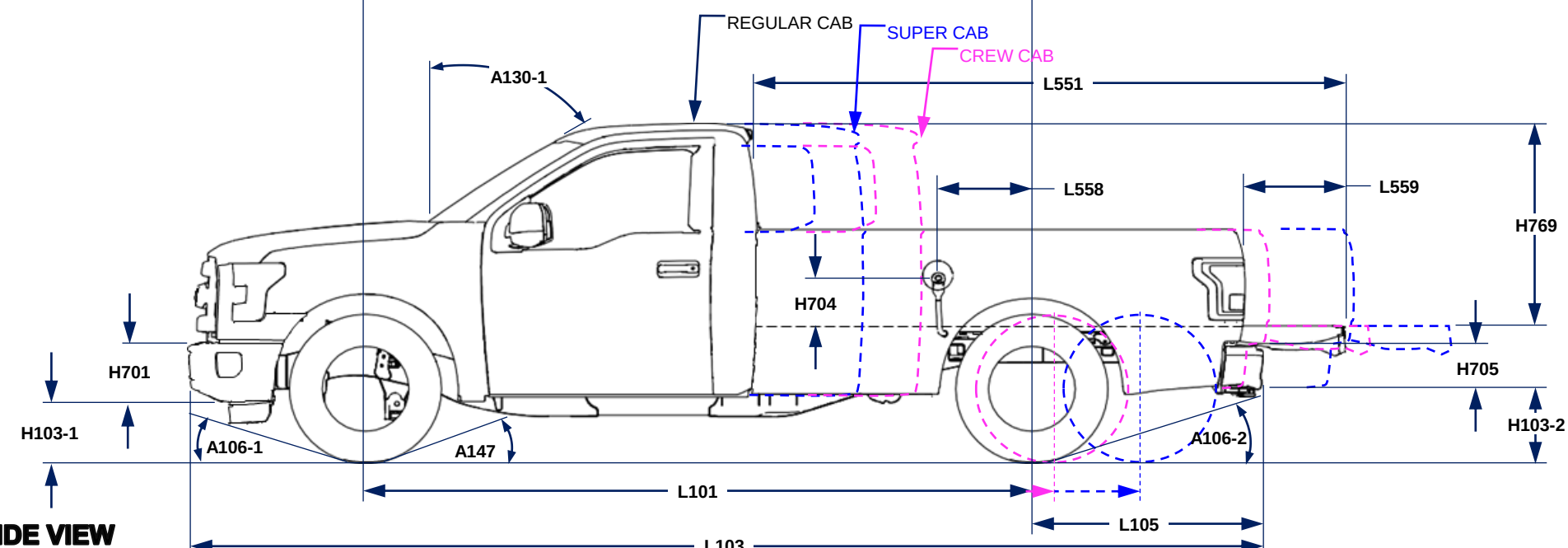
DIMENSIONAL DATA: REGULAR, SUPER, & CREW CABS



PLAN VIEW



SIDE VIEW

NOTE- [ ] DIMENSION ARE INCHES

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DIMENSIONAL DATA: REGULAR, SUPER, & CREW CABS

CHASSIS DIMENSIONAL INFORMATION		REGULAR				SUPER		CREW				CREW LIGHTNING
		123" WB		142" WB		145" WB		145" WB		157" WB		
#	DESCRIPTION	4x2	4x4	4x2	4x4	4x2	4x4	4x2	4x4	4x4		4x4
H103-1	BOTTOM OF FRONT BUMPER VALANCE TO GROUND @ CURB	246 [9.68]	284 [11.2]	249 [9.8]	286 [11.2]	252.0 [9.9]	295.0 [11.6]	251 [9.8] .0	290 [11.4]		287.0 [11.2]	258.1. [10.1] 0
H103-2	BOTTOM OF REAR BUMPER VALANCE TO GROUND @ CURB	400 [15.7]	443 [17.4]	392.0 [15.4]	443 [17.4]	379 [14.9]	424.0 [16.6]	376 [14.8] .0	422.0 [16.6]		444.0 [17.4]	511.4 [20.1]
A106-1	APPROACH ANGLE @ CURB (DEGREES)	20.7 [0.8]	23.7 [0.9]	20.8 [0.8]	23.9 [.8]	21.2 [0.8]	24.6 [.9]	21. [0.8] 0	24.2 [.9]		23.9 [0.7]	24.3 [.9]
A106-2	DEPARTURE ANGLE @ CURB (DEGREES) (TAKEN AT BOTTOM OF BUMPER)	19.9 [0.8]	22.0 [.9]	19.4 [0.8]	22.0 [.8]	19.4 [0.8]	22.0 [9]	18. [0.8] 8	21.0 [8]		22..0 [.9]	24.0 [0.9]
A147	RAMP BREAKOVER ANGLE @ CURB (DEGREES)	20.1 [0.7]	23.3 [0.9]	17.9 [0.7]	20.7 [0.8]	17.3 [0.7]	20.0 [0.8]	17. [0.7] 1	19.8 [0.8]		18.8 [0.7]	17.6 [0.7]
L101	WHEELBASE	3120 [122.8]	3120 [122.8]	3594. [141.4]	3594. [141.4]	3694.0 [145.4]		3694.0 [145.4]		3994.0 [157.2]		3696.0 [145.5]
L103	VEHICLE LENGTH	5320 [209.4]	5320 [209.4]	5794. [228.1]	5794. [228.1]	5894.0 [232.0]		5894.0 [232.0]		6194.0 [243.8]		5911.0 [232.7]
L104	FRONT OVERHANG (NO LICENSE PLATE BRACKET)	951 [37.4]	951.0 [37.4]	951.0 [37.4]	951.0 [37.4]	951		951 [37.4]				959.0 [37.7]
L105	REAR OVERHANG	1249 [49.1]	1249. [49.1]	1249. [49.1]	1249. [49.1]	1249		1249 [49.1]				1256.0 [49.4]
L403	FRONT OF BUMPER TO BACK OF CAB	3079 [121.2]	3079. [121.2]	3079. [121.2]	3079. [121.2]	3653.0		3953.0 [155.6]				3961.0 [155.9]
L404	CAB TO CL OF REAR AXLE	992.0 [39.1]	992.0 [39.1]	1466. [57.7]	1466. [57.7]	992.0 [39.1]		692.0 [27.2]		992.0 [39.1]		695.0 [27.4]
L700	CL OF FRONT AXLE TO BACK OF CAB	2128.0 [83.8]	2128. [83.8]	2128. [83.8]	2128. [83.8]	2702.0		3002.0 [118.2]				3002.0 [118.2]
L705	CL OF REAR AXLE TO REAR END OF FRAME	1031.0 [40.6]	1031. [40.6]	1031. [40.6]	1031. [40.6]	1031.0 [40.6]		1031.0 [40.6]		1031.0 [40.6]		1029.0 [40.5]
W703	FRAME RAIL WIDTH	72.0 [2.8]	72.0 [2.8]	72.0 [2.8]	72.0 [2.8]	72.0		72.0 [2.8]				68.0 [2.7]
W704	REAR FRAME WIDTH	972.0 [38.3]	972.0 [38.3]	972.0 [38.3]	972.0 [38.3]	972.0		972.0 [38.3]				964.0 [38]

PICKUP BODY DIMENSIONAL INFORMATION		REGULAR		SUPER	CREW		CREW LIGHTNING
		123" WB	142" WB	145" WB	145" WB	157" WB	
#	DESCRIPTION	6.5 FT	8 FT	6.5 FT	5.5 FT	6.5 FT	145 WB / 5.5 FT
H704	TOP OF PICKUP BOX FLOOR (HIGHEST POINT) TO CL OF FUEL FILLER DOOR	301.0 [11.9]		301.0 [11.9]	301.0 [11.9]		N/A
H705	REAR BUMPER HEIGHT	276.0 [10.9]		276.0 [10.9]	276.0 [10.9]		240 [9.4] to Bumper skin 279 [11.0] to Bumper bracket
H769	TOP OF PICKUP BOX FLOOR (HIGHEST POINT) TO TOP OF CAB @ CL OF REAR AXLE	1130.0 [44.5]		1131.0 [44.5]	1130.0 [44.5]		1118.0 [44]
L504	CAB TO PICKUP BOX	16.0 [0.6]		16.0 [0.6]	16.0 [0.6]		16.0 [0.6]
L551	BOX OVERALL LENGTH TO OPEN TAILGATE (MINIMUM)	2665.0 [104.9]	3139.0 [123.6]	2665.0 [104.9] 3139 [123.6]	2365.0 [93.1]	2665 [104.9]	2365.0 [93.1]
L558	CL OF REAR AXLE TO CL OF FUEL FILLER DOOR	504.0 [19.8]		504.0 [19.8]	504.0 [19.8]		N/A
L559	LENGTH OF OPEN TAILGATE	537.0 [21.1]		537.0 [21.1]	537.0 [21.1]		537.0 [21.1]

CAB* DIMENSIONAL INFORMATION		REGULAR		SUPER	CREW		CREW LIGHTNING
#	DESCRIPTION	4x2	4x4	4x2	4x2	4x4	4x4
A130-1	WINDSHIELD ANGLE (DEGREES)	56.5		56.5	56.5		56.0 [2.2]
H701	FRONT BUMPER HEIGHT W/ VALENCES	399.0 [15.7]		399.0 [15.7]	399.0 [15.7]		443.0 [17.4]
W116	VEHICLE BODY WIDTH (MAX W/O MIRRORS)	2030.0 [79.9]		2030.0 [79.9]	2030.0 [79.9]		2031.0 [80]
W144	VEHICLE WIDTH (MAX W/ STANDARD MIRRORS)	2430.0 [95.7]		2430.0 [95.7]	2430.0 [95.7]		2438.0 [96]
W144	VEHICLE WIDTH (MAX W/ OPTIONAL TRAILER TOW MIRRORS)	2689.0 [105.9]		2689.0 [105.9]	2689.0 [105.9]		N/A
W702	FRONT BUMPER WIDTH	1970.0 [77.6]		1970.0 [77.6]	1970.0 [77.6]		1968.0 [77.5]

'*' Common Cab dimensions between 145" & 164" WB

NOTE- [ ] DIMENSION ARE INCHES

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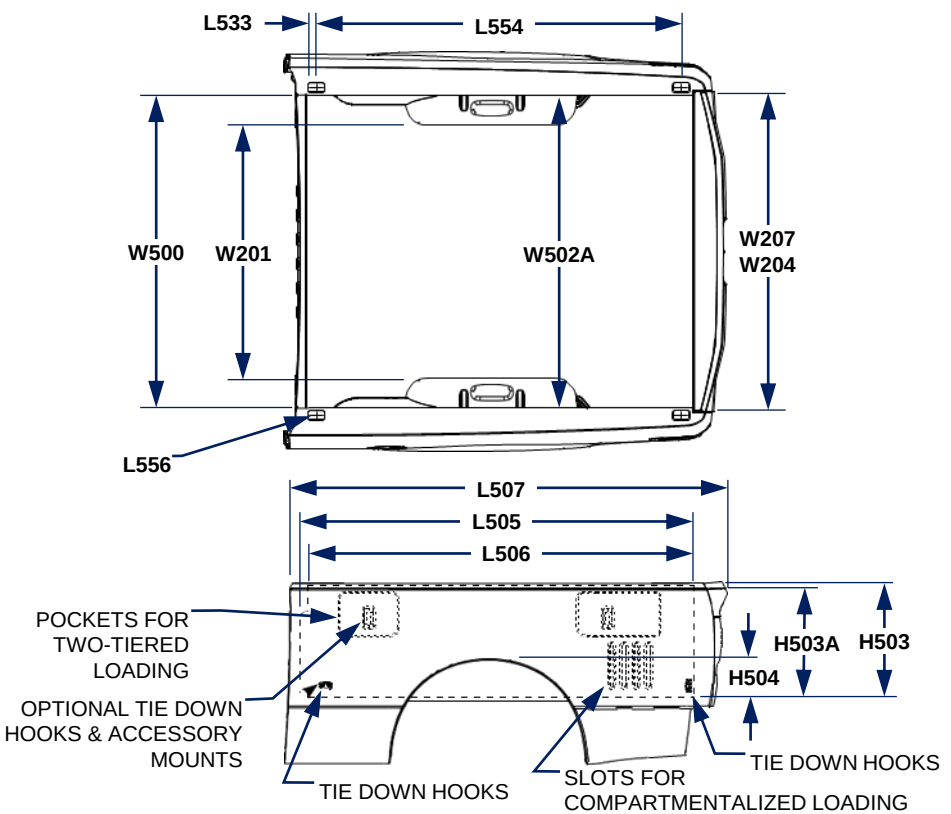
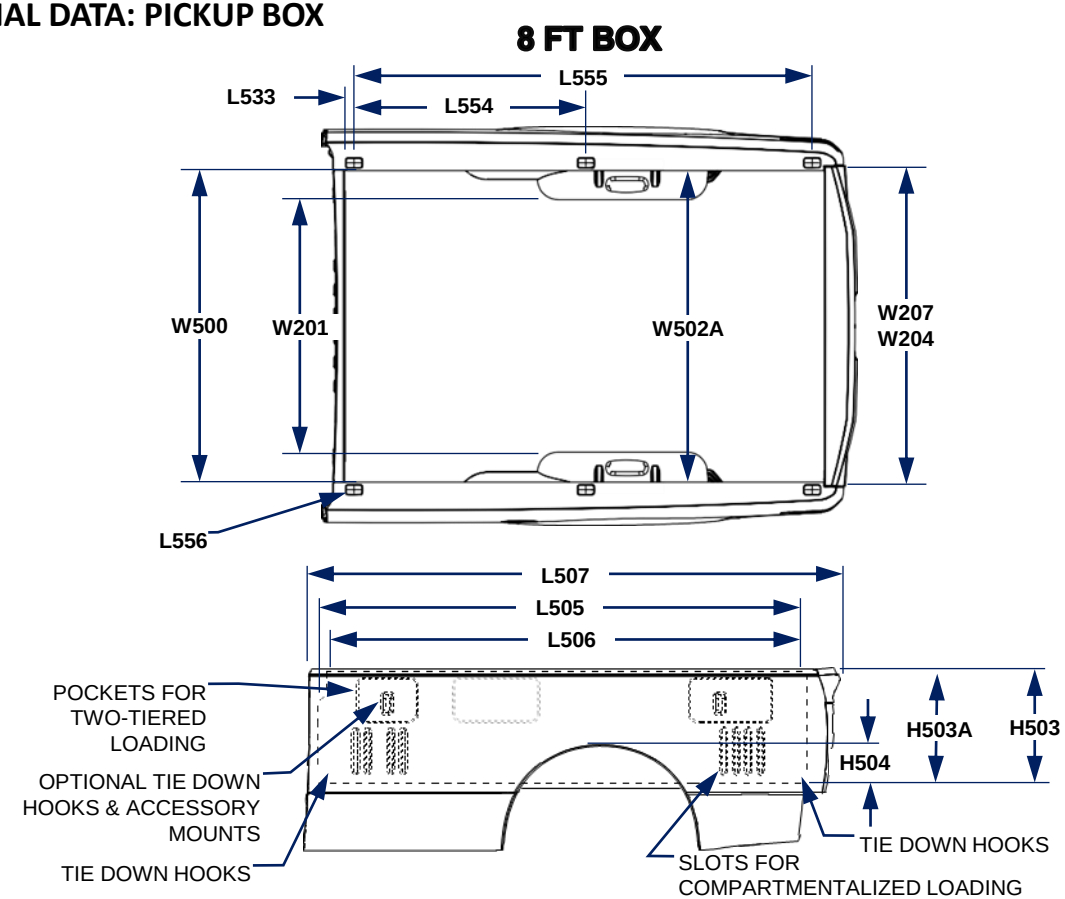
DIMENSIONAL DATA: PICKUP BOX

5.5 & 6.5 FT BOX



8 FT BOX



#	DESCRIPTION	5.5' STYLESIDE	6.5' STYLESIDE	8' STYLESIDE	(F-150 LIGHTINING) 5.5' STYLESIDE
H503	CARGO BODY HEIGHT W/MOLDING	543 [21.4]	543 [21.4]	543 [21.4]	543 [21.4]
H503A	CARGO BODY HEIGHT WITHOUT MOLDING	534 [21]	534 [21]	534 [21]	534 [21]
H504	WHEELHOUSE HEIGHT	234 [9.2]	234 [9.2]	234 [9.2]	234 [9.2]
L505	CARGO BODY LENGTH @ FLOOR	1705 [67.1]	2005 [78.9]	2479 [97.6]	1705 [67.1]
L506	CARGO BODY LENGTH @ TOP (BELT)	1662 [65.4]	1962 [77.2]	2436 [95.9]	1662 [65.4]
L507	CARGO BODY OVERALL LENGTH (Includes tailgate handle bezel)	1977 [77.8]	2277 [89.6]	2751 [108.3]	1977 [77.8]
L553	INSIDE FRONT OF BOX TO CL OF STAKE #1	1597 [62.9]	48 [1.9]	48 [1.9]	1597 [62.9]
L554	CL OF STAKE #1 TO CL OF STAKE #2	N/A	1850 [72.8]	1176 [46.3]	N/A
L555	CL OF STAKE #1 TO CL OF STAKE #3	N/A	N/A	2324 [91.5]	N/A
L556	STAKE POCKET SIZE (L X W)	58 x 43 [2.3 x 1.7]	58 x 43 [2.3 x 1.7]	58 x 43 [2.3 x 1.7]	58 x 43 [2.3 x 1.7]
W201	CARGO WIDTH AT WHEELHOUSE	1285 [50.6]	1285 [50.6]	1285 [50.6]	1285 [50.6]
W207	REAR OPENING WIDTH AT FLOOR	1531 [60.3]	1531 [60.3]	1531 [60.3]	1531 [60.3]
W204	REAR OPENING WIDTH @ TOP (BELT)	1531 [60.3]	1531 [60.3]	1531 [60.3]	1531 [60.3]
W500	CARGO BODY MAXIMUM INSIDE WIDTH @ FLOOR	1656 [65.2]	1656 [65.2]	1656 [65.2]	1656 [65.2]
W502A	CARGO BODY MAXIMUM INSIDE WIDTH @ CL OF REAR AXLE	1686 [66.4]	1686 [66.4]	1686 [66.4]	1686 [66.4]
V5	CARGO VOLUME - LITERS [CU.FT.]	1495 [58.9]	1765 [69.5]	2191 [86.3]	1495 [58.9]

NOTE- [ ] DIMENSION ARE INCHES

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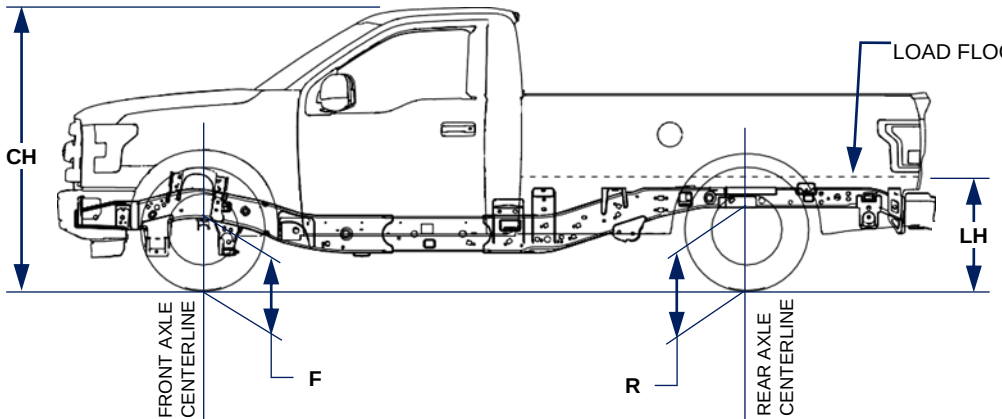
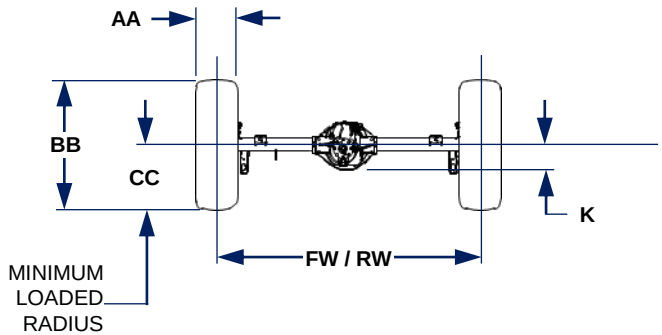
AXLE / TIRE / VEHICLE HEIGHT DATA: REGULAR, SUPER, & LIGHTNING





MODEL	WB (in.)	GVWR (lb.)	BASE TIRE	"F" Height @ Frt Wheel to Bottom of Frame[1,2] Height at Base Curb Wt.	"F" Height @ Frt Wheel to Bottom of Frame[1,2] Loaded Height @ Spring Rating	"R" Height @ Rr Wheel to Bottom of Frame[1,2] Height at Base Curb Wt.	"R" Height @ Rr Wheel to Bottom of Frame[1,2] Loaded Height @ Spring Rating	LH[1,2] EMPTY	LH[1,2] LOADED	CH[1,2] EMPTY	CH[1,2] LOADED	K (8.8" Axle / 9.75" Axle)		AA (SECTION WIDTH)	BB (DIAMETER)	CC (STATIC LOAD RADIUS)	FW	RW
REG CAB 4X2	123	6050	245/70R17 110T A/S BSW	462 [18.2]	428 [16.9]	616 [24.2]	510 [20.1]	843 [33.1]	713 [28.0]	1913 [75.3]	1837 [72.3]	148 / 164	[5.8] / [6.5]	250 [9.8]	771 [30.4]	342 [13.5]	1725 [67.9]	1736 [68.3]
	142	6100		461 [18.1]	427 [16.8]	612 [24]	510 [20.1]	835 [32.8]	713 [28.0]	1905 [75]	1836 [72.3]	148 / 164	[5.8] / [6.5]	250 [9.8]	771 [30.4]	342 [13.5]	1725 [67.9]	1736 [68.3]
REG CAB 4X4	123	6050	265/70R17 115T A/T BSW	500 [19.7]	474 [18.7]	657 [25.8]	556 [21.9]	885 [34.8]	760 [29.9]	1954 [76.9]	1883 [74.1]	148 / 164	[5.8] / [6.5]	268.9 [10.6]	796 [31.3]	350 [13.8]	1725 [67.9]	1736 [68.3]
	142	6325		500 [19.7]	474 [18.7]	660 [25.9]	556 [21.9]	886 [34.8]	759 [29.9]	1949 [76.7]	1882 [74.1]	148 / 164	[5.8] / [6.5]	268.9 [10.6]	796 [31.3]	350 [13.8]	1725 [67.9]	1736 [68.3]
SUPER CAB 4X2	145	6250	245/70R17 110T A/S BSW	463 [18.2]	425 [16.7]	602 [23.7]	510 [20.1]	822 [34.1]	714 [28.1]	1911 [75.2]	1838 [72.4]	148 / 164	[5.8] / [6.5]	250 [9.8]	771 [30.4]	342 [13.5]	1725 [67.9]	1736 [68.3]
SUPER CAB 4X4	145	6480	265/70R17 115T A/T BSW	505 [19.9]	470 [18.5]	647 [25.4]	553 [21.7]	867 [34.1]	756 [29.7]	1955 [76.9]	1882 [74.1]	148 / 164	[5.8] / [6.5]	268.9 [10.6]	796 [31.3]	350 [13.8]	1725 [67.9]	1736 [68.3]
LIGHTNING	145	6250	275/65R18	491 [19.3]	456 [17.9]	576 [22.6]	494 [19.4]	911 [35.8]	817 [32.1]	1994 [78.0]	1925 [75.8]	- / -	- / -	276 [10.9]	815 [32.1]	360.4 [14.2]	1729 [68.1]	1736 [68.3]

1 – THE HIEGHT DATA SHOWN REPRESENTS DIMENSIONS OF A BASE/STANDARD VEHICLE WITH NO OPTIONS. ACTUAL HEIGHT MAY VERY DUE TO PRODUCTION TOLERANCES.
2 – VEHCILE RIDE HEIGHTS ARE GIVEN AT THE TIRE MINIMUM LOADED RADIUS.

TIRE SIZE / DESCRIPTION	RIM WIDTH (in.)	SECTION WIDTH (mm)	STATIC LOADED RADIUS (mm)	DIAMETER (mm)
245/70R17 110T A/S BSW (4x2 Base Tire)	7.5	250	342.2	771
265/70R17 115T A/T BSW (4x4 Base Tire)	7.5	268.9	350.4	795.6
265/60R18 110T A/S BSW	7.5 & 8.5	271.3	342.5	772.1
275/65R18 116T A/T BSW	7.5 & 8.5	276.7	361.9	816.4
275/65R18 116T A/T BSW	7.5 & 8.5	276	360.4	815
275/60R20 115H A/S BSW	8.5	289.6	379.9	844.3
275/60R20 115T A/T BSW	8.5	274.2	368.2	835
275/60R20 115T A/T BSW	8.5	282.1	374.7	834.9
275/50R22 111T A/S BSW	8.5	276.4	379.3	834
LT265/70R17C 112/109S A/T BSW	7.5	273.2	371.8	806
LT265/70R18C 113/110S A/T BSW	7.5 & 8.5	267.5	384.8	837

WHEEL TYPE / DESCRIPTION	WHEEL SIZE (IN.)	INSET (IN./MM)	# OF STUDS	BOLT CIRCLE (IN./MM)	MAX. WHEEL CAPACITY LOAD FRT / RR (LB.)
SILVER STEEL	17 x 7.5	1.73 / 44	6	5.3 / 135	2025 / 2075
SILVER PAINTED ALUMINUM	17 x 7.5	1.73 / 44	6	5.3 / 135	2025 / 2075
SILVER ALUMINUM (HEAVYDUTY PAYLOAD PACKAGE)	18 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2400
MACHINED ALUMINUM	18 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
CHROMELIKE PVD	18 x 7.5	1.73 / 44	6	5.3 / 135	2000 / 2075
MACHINED ALUMINUM W / PAINTED POCKETS	20 x 8.5	1.73 / 44	6	5.3 / 135	1925 / 2075
ALUMINUM	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
6 SPOKE PAINTED ALUMINUM	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
CHROMELIKE PVD ALUMINUM	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
CHROMELIKE PVD ALUMINUM	22 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
POLISHED ALUMINUM	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
FULLY PAINTED BLACK (ALL INSERTS)	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
FULLY PAINTED BLACK (ALL INSERTS)	22 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2075
LIGHTNING BEV MACHINED W/BLACK POCKETS	18 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2475
LIGHTNING BEV ALLOY DARK CARBONIZED	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2475
LIGHTNING BEV BRIGHT MACHINED W/BLACKPOCKE	20 x 8.5	1.73 / 44	6	5.3 / 135	2025 / 2400

NOTE- [ ] DIMENSION ARE INCHES

Body Builders Layout Book

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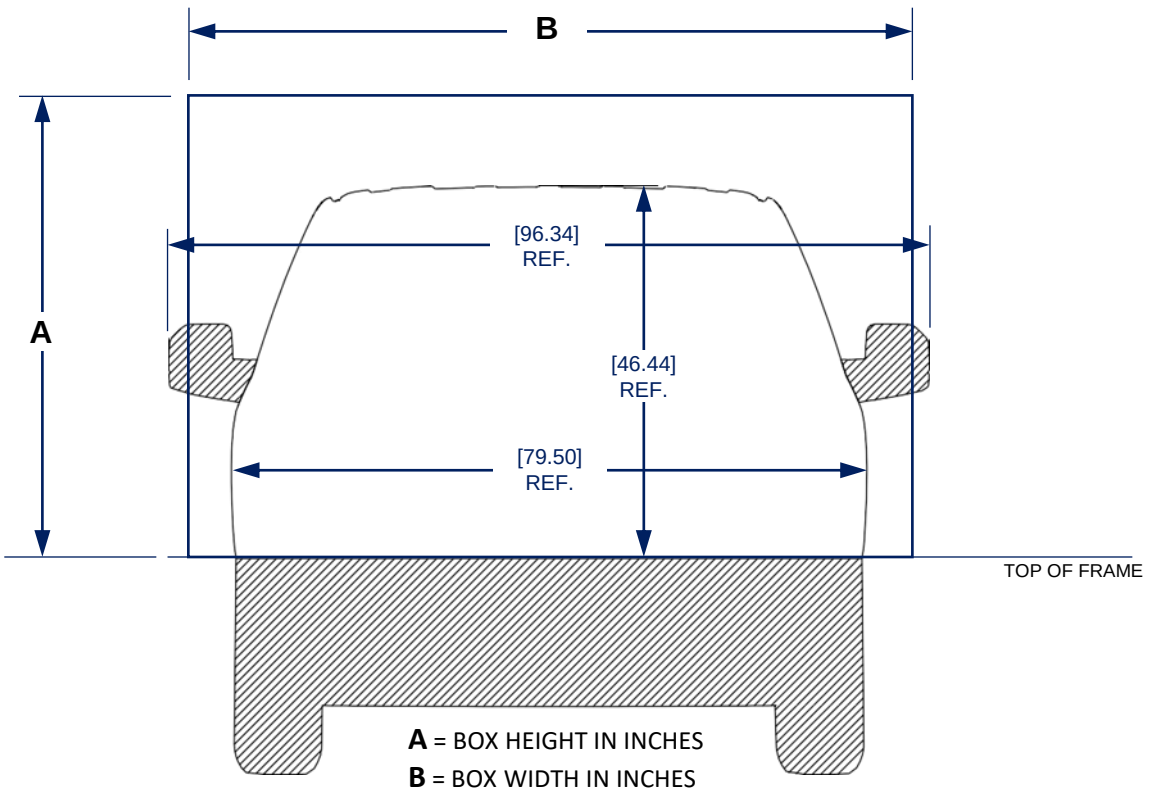
FRONTAL SURFACE AREA WORKSHEET



TO FIND FRONT SURFACE AREA IN SQ. INCHES: (A X B) + 1785.6 =

TO FIND FRONT SURFACE AREA IN SQ. FEET : ((A X B)) / 144) + 12.40 =

BELOW FRAME SHADED AREA = 1050376.4 / (25.4 X 25.4) = 1628.0868 SQ. IN. or
1628.0868 / (12 X 12) = 11.3062 SQ. FT.

MIRROR SHADED AREA = (50822.9 X 2) / (25.4 X 25.4) = 157.5513 SQ. IN. or
157.5513 / (12 X 12) = 1.0941 SQ. FT.

TOTAL SHADED AREA = 1152022.2 / (25.4 X 25.4) = 1785.6379 SQ. IN. or
1785.6379 / (12 X 12) = 12.4002 SQ. FT.

NOTE- [ ] DIMENSION ARE INCHES

Body Builders Layout Book

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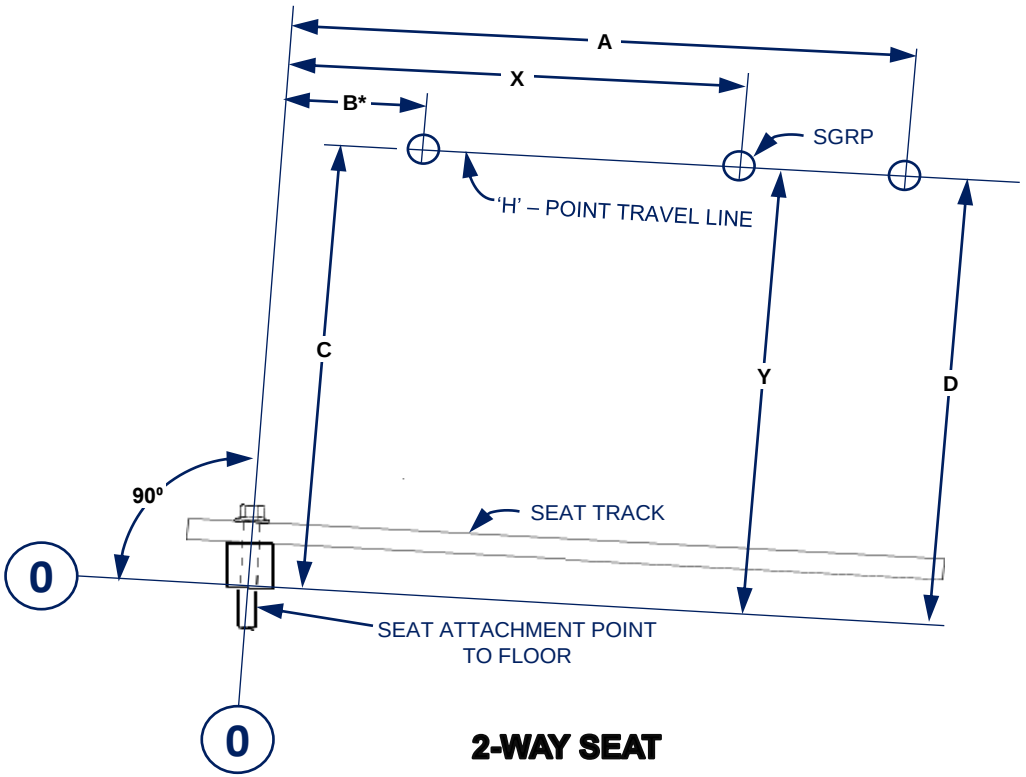
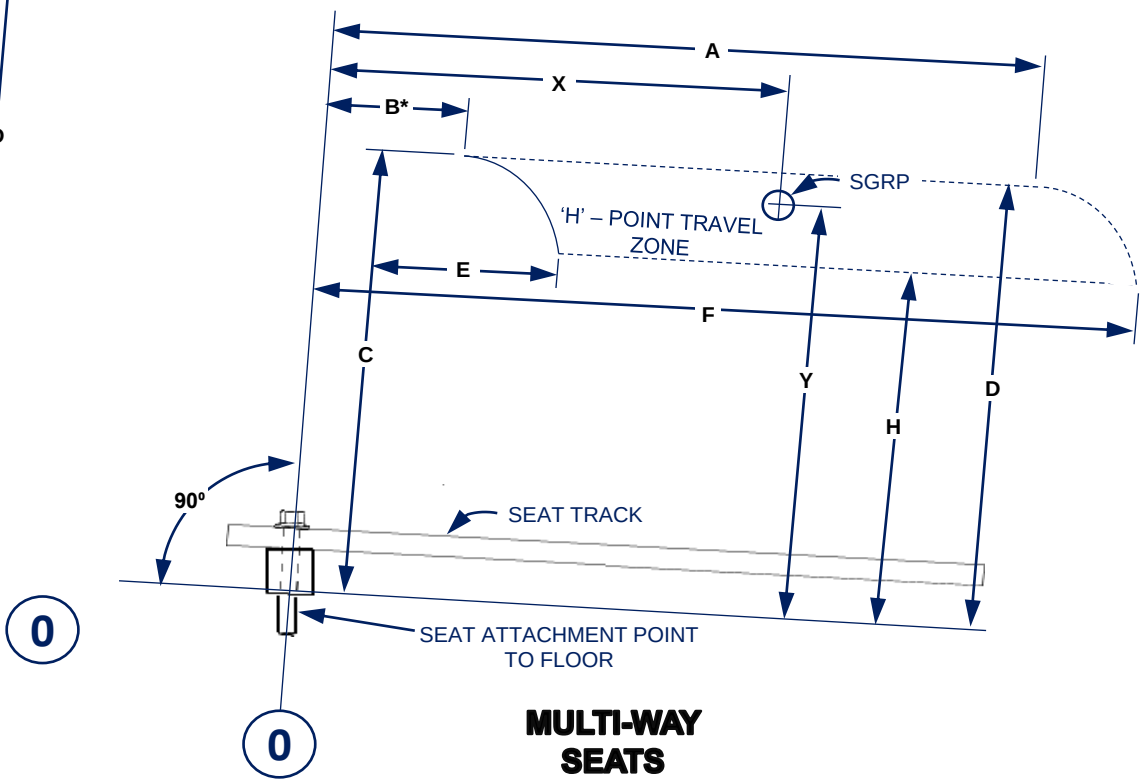
DIMENSIONAL DATA: SEAT H-POINT (ALL MODELS)



2-WAY SEAT



MULTI-WAY SEATS

FOV

Seat Combinations		Seat Dimensions								SgRP Location	
Driver	Passenger	A	B *	C	D	E *	F	G	H	X	Y
2-Way	2-Way	393 [15.5]	138 [5.4]	318 [12.5]	307 [12.1]	0 [0]	0 [0]	0 [0]	0 [0]	317 [12.5]	311 [12.2]
8-Way **	2-Way	354 [13.9]	98 [3.9]	350 [13.8]	339 [13.3]	158 [6.2]	413 [16.3]	287 [11.3]	276 [10.9]	317 [12.5]	311 [12.2]
10-Way	10-Way	354 [13.9]	98 [3.9]	350 [13.8]	339 [13.3]	158 [6.2]	413 [16.3]	287 [11.3]	276 [10.9]	317 [12.5]	311 [12.2]

SEAT TRACK ANGLE TO (HORIZONTAL) TOP OF FRAME = 2.5°
* ADD 10MM TO DIMENSION SHOWN FOR PASSENGER SEAT ONLY.
** 8-WAY SEAT AVAILABLE ON DRIVER'S SIDE ONLY (COMES WITH 2-WAY SEAT ON PASSENGER SIDE).

NOTE- [ ] DIMENSION ARE INCHES

F-150

FORD CO-PILOT360™ TECHNOLOGY

FORD CO-PILOT360™

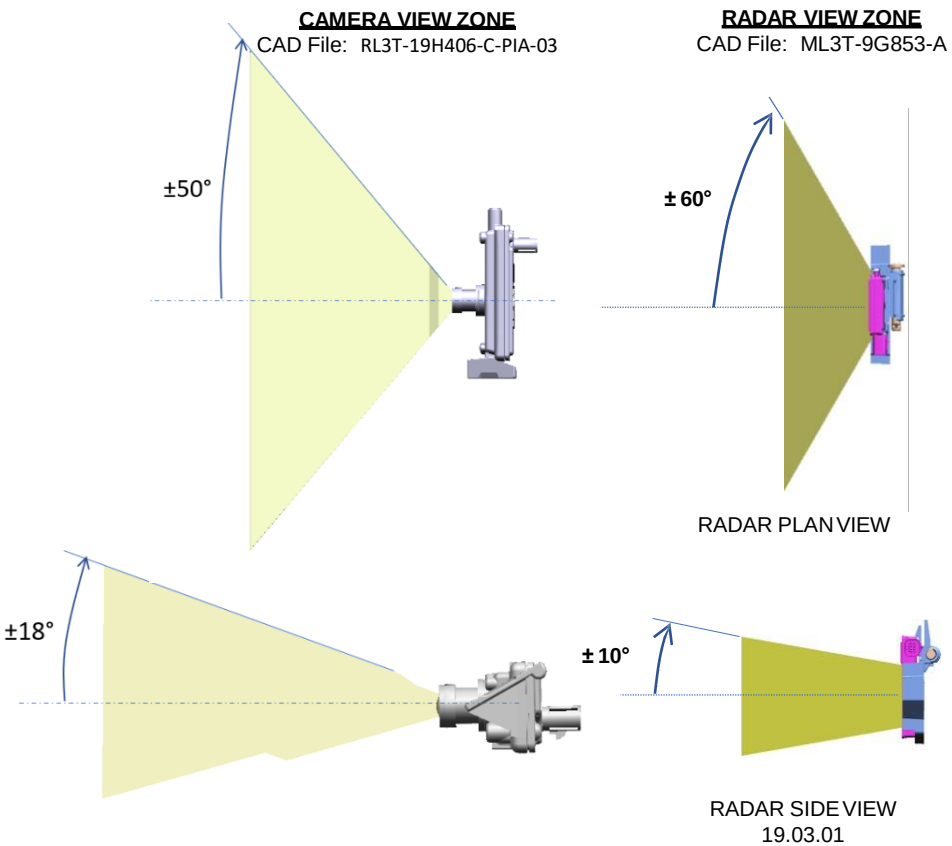
Ford Co-Pilot360 Technology is a collection of advanced driver-assist features designed to help drivers feel confident and in command on the road. These smart features can help drivers be more aware of their surroundings, provide alerts about surprises on the road and help to avoid potential collisions while navigating the road ahead. This brand represents the growing collection of Ford driver-assist features, available in branded packages or individually, on select vehicles across the Ford lineup.

Ford Co-Pilot360™ 2.0

— Pre-Collision Assist with Automatic Emergency Braking (AEB)
○ Pedestrian Detection
○ Forward Collision Warning
○ Dynamic Brake Support
— BLIS® with Cross-Traffic Alert
— Lane-Keeping System
○ Lane-Keeping Alert
○ Lane-Keeping Aid
○ Driver Alert
— Rear View Camera
— Auto High Beams
— Reverse Sensing System
— Reverse Brake Assist
— Post-Collision Braking
● Autolamp – Auto On/Off Headlamps

(NOTE: Specific features vary by vehicle and trim, or series level. Consult the vehicle Product Order Guide)

IMPORTANT
Installed upfitter equipment should not infringe on the radar or camera view zones. The CAD files of the radar and camera view zones are available upon request via the Ford BBAS web site (www.fordbbas.com/contactus).



F-150

PRECAUTIONARY DRILL ZONES GUIDANCE (LIGHTNING ONLY)

PRECAUTIONARY DRILL ZONES
This guidance only applies to the F-150 BEV.
- Addition or installation of 12V+ accessories or upfits refer to the 12 –Volt After Market Accessory Mounting Section
- Box Removal on F-150 Lightning is not recommended or supported.

It is STRONGLY recommended that F-150 LIGHTNING CAD is obtained for upfitter use to understand vehicle component placement/location of Hi/Low-Voltage Wire harness routing, coolant line wiring, hydraulic brake line routing, rear drive unit placement, etc. CAD can be obtained from Ford Body Builder Advisory Service by submitting a helpdesk ticket, https://fordbbashelpdesk.kayako.com/Tickets/Submit

Take precautions when undertaking drilling, or any other operation, aft of B-Pillar in order to prevent damage to any components under the vehicle floor. High Voltage (HV) grounding points in the vehicle are not to be touched.
- When adding holes/fasteners to the floor of the vehicle to secure upfits, consideration must be given to all components below the floor.
  - It is strongly recommended that drill-depth stop be used. Drill stop depth shall not exceed 1.0 [25.4] MAXIMUM DEPTH
  - Fasteners (including PlusNut® or equivalent) extending below the floor of the vehicle shall not exceed 1.0 [25.4] MAXIMUM DEPTH (Figure A)
  - Fasteners (and/or alternative fastening method) extending below the floor of the vehicle shall have 2.0 [50.8] MINIMUM CLEARANCE to any surrounding Hi/Low-Voltage wiring and/or coolant line routing and/or hydraulic brake line routing to prevent any damage/chaffing. (Figure B)

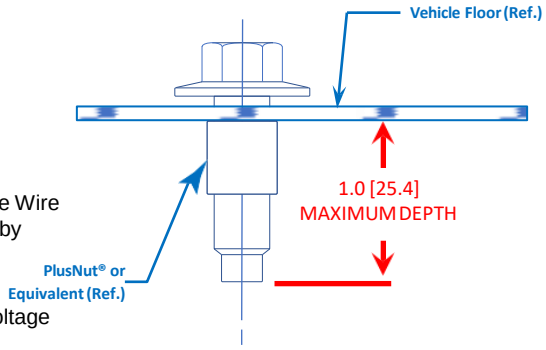


FIGURE A

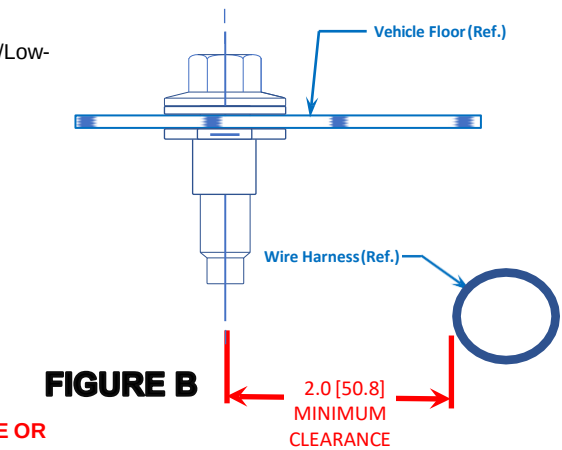


FIGURE B

NOTE:
- Re-paint metal edges after cutting or drilling.
- All metal edges must comply with exterior and interior protection legislation. All fixings through the floor, sides or roof must be sealed.

(Refer General Body Builder Layout Book for Corrosion Prevention)

WARNING:

TO PREVENT THE RISK OF HIGH-VOLTAGE SHOCK, PRECISELY FOLLOW ALL WARNINGS, INCLUDING INSTRUCTIONS TO DEPOWER THE HIGH VOLTAGE SYSTEM. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

WARNINGS:
- **DO NOT TOUCH, DRILL, MODIFY OR OBSCURE THE ORANGE HIGH VOLTAGE CABLES, FASTENERS, CHANNELS, STRAIN RELIEF, GROUND WIRE OR CONNECTORS**
- **FASTENERS THAT UPFITTERS INSTALL MUST POINT AWAY FROM THE BATTERY TO NOT TO CAUSE DAMAGE TO THE BATTERY. DO NOT ADD A FASTENER INTO THE VEHICLE THAT WOULD POINT TOWARD THE HV BATTERY**
- **NO COMPONENTS OR STRUCTURE INSTALLED BY AN UPFITTER SHALL RESULT IN CONTACT, PENETRATION (ESPECIALLY ADDED FASTENERS POINTED TOWARDS THE HIGH VOLTAGE BATTERY OR OTHER ELECTRICAL COMPONENTS), SEPARATION, OR OTHER DAMAGE TO THE HIGH VOLTAGE ELECTRICAL SYSTEM OR ANY PORTION THEREOF WHEN THE VEHICLE IS TESTED IN ANY MANNER**
- **DO NOT DRILL THE SIDE IMPACT BARS OR SIDE ENERGY ABSORPTION MEMBERS**
- **DO NOT WELD TO THE HIGH VOLTAGE BATTERY, CASING OR CRADLE**
- **DO NOT WELD OR GROUND WELDING EQUIPMENT TO THE BATTERY, BATTERY CASING, OR BATTERY CRADLE**
- **DO NOT MODIFY THE HIGH VOLTAGE CHARGE PORT INLET CONNECTOR/MOUNTING BRACKET**
- **DO NOT MODIFY HIGH VOLTAGE/LOW VOLTAGE GROUNDING LOCATIONS/JOINTS/FASTENERS OF THE CHARGE PORT PACKAGE GROUNDS**
- **DO NOT MODIFY ANY OF THE ORANGE HIGH VOLTAGE CABLES**
- **DO NOT REMOVE FASTENERS AND PROTECTIVE SHIELD FROM CHARGE PORT INLET HARNESS**
- **TAKE PRECAUTION WHEN UNDERTAKING DRILLING OR OTHER OPERATION IN OR NEAR ANY HV/LV CABLING, HV COMPONENTS, COOLING LINES TO PREVENT DAMAGE**

Additional Electrical System Guidance and High Voltage Warnings can be found in the General BBLB which can be accessed via the web at https://fordbbas.com under “Publications”. For BBLB documents, expand the “Body Builder Layout Book” Section to view all available documents. For Vehicle Specifications, expand the “Vehicle Specifications” section.

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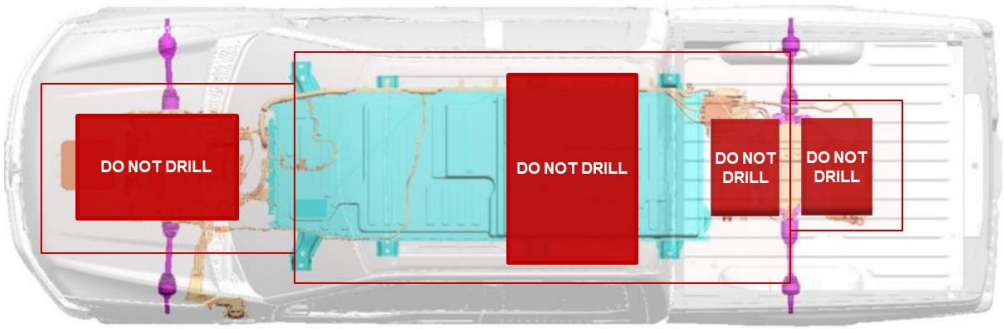
PRECAUTIONARY DRILL ZONES GUIDANCE & HIGH VOLTAGE BATTERY VENTING (LIGHTNING ONLY)



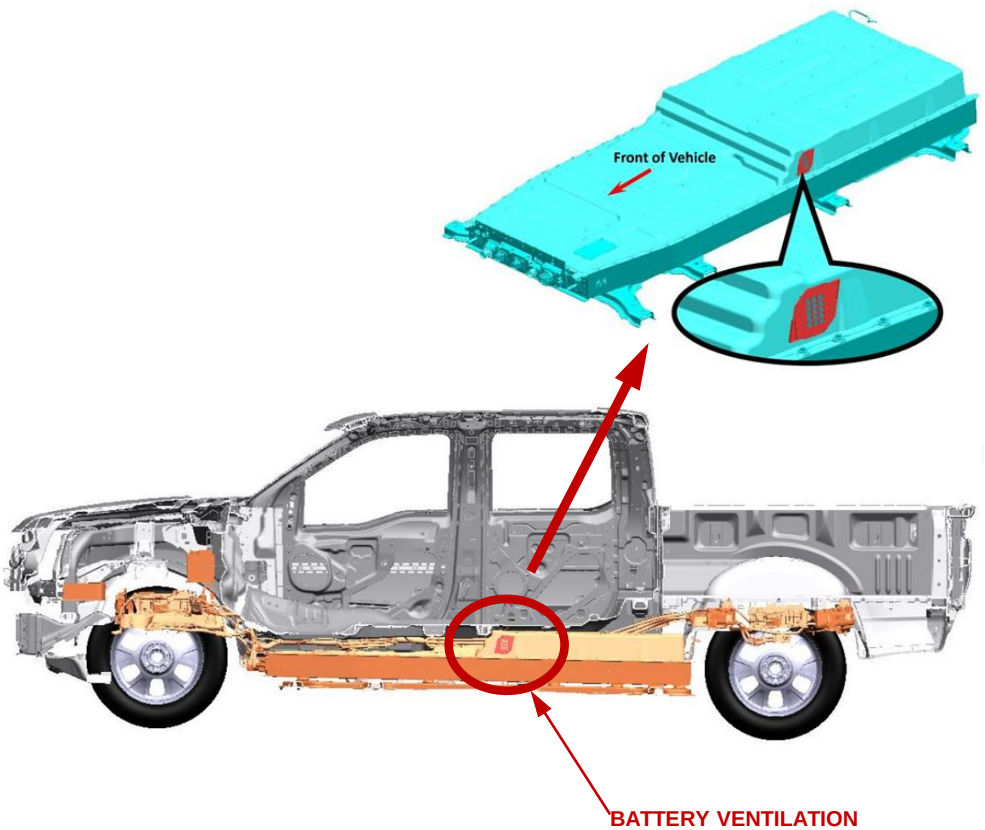
PRECAUTIONARY DRILL ZONES

DO NO DRILL ZONES

CAD DATA REQUEST REQUIRED FOR COMPONENT PLACEMENT

HIGH VOLTAGE (HV) BATTERY VENTING

- If the HV Battery is equipped with pressure equalization patches, pressure relief ports, and/or exhaust vent ducts, no additional components nor obstructions (beyond any installed by Ford) shall be located in the same environment as the battery (e.g., underbody), and within 150 mm of these features. Additionally, no components which may contain combustible liquids or gasses at any time shall be added by the upfitter within 300 mm of these features.
- There shall be no modifications or installed components which confine the air space near the outside of the HV Battery or obstruct the free flow of air about the battery (beyond any installed by Ford).
- Any cut outs or openings created between the occupant space and the vehicle underbody shall be sealed such that air is not free to pass from under the vehicle into the occupant space.
- If any primary ingress/egress paths for occupant spaces are located above or rearward of the rear axle(s), a metallic shielding shall be added to obstruct any air flow from the battery towards those ingress/egress paths and redirect that air flow towards a side/rear area that is not a primary ingress/egress path.



F-150

ELECTRICAL: 12-VOLT ACCESSORY MOUNTING, IGNITION RUN/START, & CHMSL CIRCUITS (LIGHTNING)

12 VOLT AFTERMARKET ACCESSORY MOUNTING

GUIDANCE PROVIDED IS LIMITED TO F-150 LIGHTNING PRO AND XLT ONLY (NOT APPLICABLE TO HIGHER LIGHTNING TRIM SERIES)

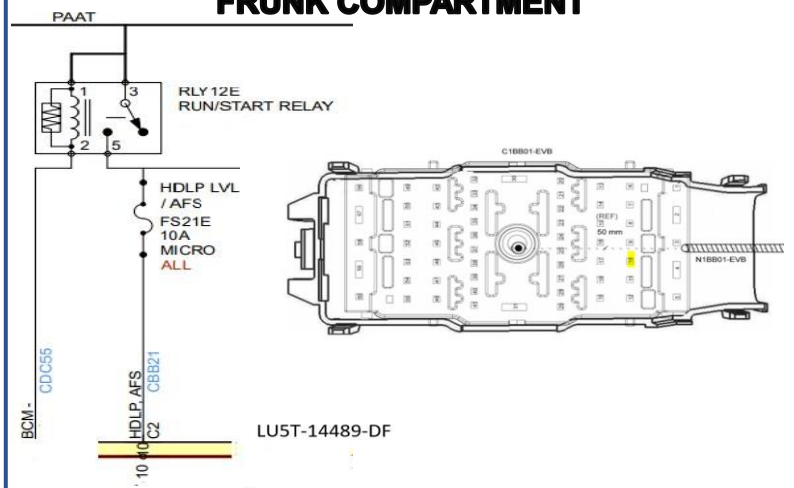
RECOMMENDATION:

- The 220A DC-DC converter and range battery pack standard on the F-150 Lightning Pro trim level can be used for applications that add aftermarket equipment such as lighting, radios, video, computers, video, spot lamps, surveillance, radar, etc.
- There is a maximum of 55 Amps total available for aftermarket equipment for the F-150 Lightning Pro trim level.
- There is a maximum of 30 Amps total available for aftermarket equipment for the F-150 Lightning BASE XLT trim level
- Do not add 12V upfits to higher trim levels
- The addition of a secondary 12 Volt Battery source is not recommended, please refer to the F-150 Police Responder Modifiers Guide, Section 2: Electrical, for further circuit details.
- WARNING: Exceeding Rated Amps can result in degraded vehicle performance and/or impact to 12 Volt battery charge state.
- 2023MY Lightning Pro Electrical System overview can be found by referencing F-150 Police Responder Modifiers Guide (Section 2: Electrical, further circuit details), and Police Modifier Bulletin P-034 R1 (which includes information to access power, ground points and illustrations of selected high voltage components).
- Additional reference information on the High Voltage and Electrical Guidance found in the General Body Builder Layout Book.
- F-150 Lightning consists of various high-voltage components and wiring. All of the high-voltage power flows through specific wiring assemblies labeled as such or covered with a solid orange convolute, or orange striped tape, or both. Do not come in contact with these components.

WARNING: THIS BATTERY PACK SHOULD ONLY BE SERVICED BY AN AUTHORIZED ELECTRIC VEHICLE TECHNICIAN. IMPROPER HANDLING CAN RESULT IN PERSONAL INJURY OR DEATH.

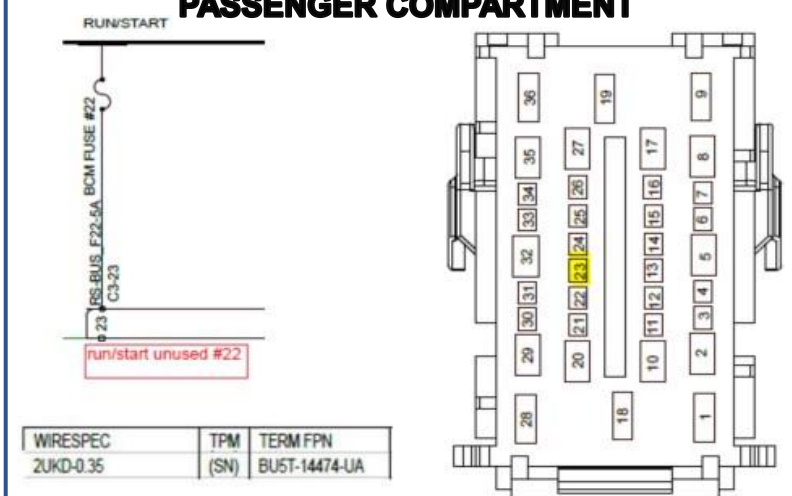
WARNING: WORKING IN THIS AREA OF THE VEHICLE MAY RESULT IN SERIOUS PERSONAL INJURY OR DAMAGE TO A VEHICLE. BEFORE WORKING ON THIS VEHICLE, THE HIGH VOLTAGE POWER MUST BE DISCONNECTED

FRUNK COMPARTMENT



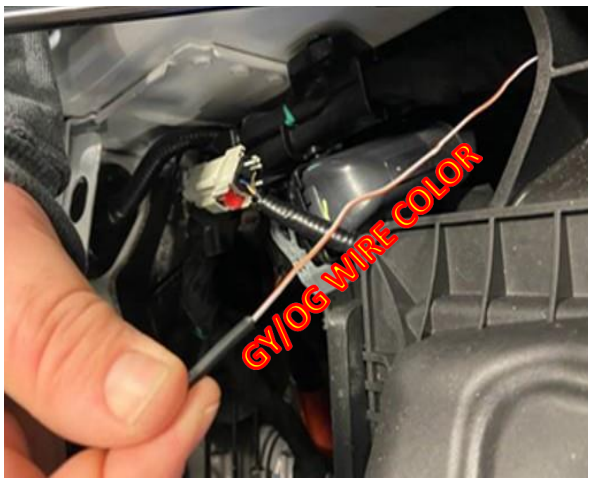
- Run/Start Circuit is available via pin 10 of the 60-pin connector C2 located at PDB J2 at the right-hand side of the engine compartment.
- The circuit/terminal is not populated and will need to be added (suggested 18 Ga circuit). Fuse 21 is rated for 10A. It is suggested to use this fuse for energizing a relay coil only.

PASSENGER COMPARTMENT

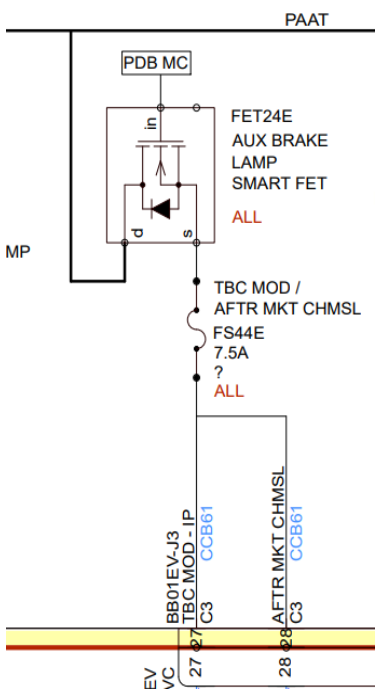


- Run/Start Circuit is available via pin 23 of the 36-pin connector C3 located at BCM J3 at the passenger outboard footwell.
- The circuit/terminal is not populated and will need to be added. Fuse 22 is rated at 5A.

CHMSL ACCESS



- There is a Circuit taped to the harness near the Left Front Wheel Sensor/ABS Evac and Fill connections to be used as an aftermarket CHMSL



Body Builders Layout Book

F-150

CHANGE CONTROL

- Updated weight charts 04/05/2024